ABSTRACT OF THE DISCLOSURE

An optical single-sideband modulated signal generator, comprising optical modulation means for amplitude-modulating an optical carrier by an electric modulation signal to obtain an optical double-sideband modulated signal, and optical signal sideband suppressor means for suppressing either one of the sidebands of the optical double-sideband modulated signal to derive therefrom an optical single-sideband modulated signal. The optical modulation means provides, respectively, first optical double-sideband modulated signal and second optical double-sideband modulated signal on branched optical waveguide paths, which have at least one optical carrier phase-shifter for establishing a relative phase difference of 90° between baseband signal components at the branched optical waveguide paths and at least one delay means for compensation for a relative delay difference between the baseband signal components at the branched optical waveguide paths .